

36. The method of claim 34 wherein said first and second valves communicate with first and second engine cylinders, respectively.

37. A method for controlling an engine, comprising:
transferring electrical energy generated in a first electromechanical cylinder exhaust valve during closing of said first valve to a second electromechanical cylinder exhaust valve to open said second valve.

38. A method for controlling an engine, comprising:
transferring electrical energy generated in a first electromechanical cylinder intake valve during closing of said first valve to a second electromechanical cylinder intake valve to open said second valve.

39. A method for controlling an engine, comprising:
recirculating a current generated in a first electromechanical cylinder exhaust valve while decelerating said first valve towards a closed position to a second electromechanical cylinder intake valve to open said second valve.

40. A method for controlling an engine, comprising:
recirculating a current generated in a first electromechanical cylinder exhaust valve while decelerating said first valve towards a closed position to a second electromechanical cylinder exhaust valve to open said second valve.

41. A method for controlling an engine, comprising:
recirculating a current generated in a first electromechanical cylinder intake valve while decelerating said first valve towards a closed position to a second electromechanical cylinder intake valve to open said second valve.

42. A method for controlling an engine, comprising:
reversing a flow of current in a first electromechanical valve communicating with a first engine cylinder when said first valve is being closed; and,
directing said current to a second electromechanical valve communicating with a second engine cylinder to induce said second valve to move towards an open position.

43. The method of claim 42 wherein said step of reversing said flow of current occurs when said first valve is being decelerated towards a closed position.

44. The method of claim 42 wherein said first valve is a cylinder exhaust valve and said second valve is a cylinder intake valve.

45. The method of claim 42 wherein said first valve is a cylinder exhaust valve and said second valve is a cylinder exhaust valve.

46. The method of claim 42 wherein said first valve is a cylinder intake valve and said second valve is a cylinder intake valve.

47. A method for controlling an engine, comprising:
generating a current in the first ball-screw valve assembly communicating with a first engine cylinder while decelerating said first valve assembly towards a closed position; and,

directing said current to a second ball-screw valve assembly communicating with a second engine cylinder to induce said second valve assembly to move towards an open position.

3/2000
48. A system for controlling valve operation in an engine, comprising:

a first control circuit coupled to a first electromechanical valve, said first valve controlling fluid communication with a first engine cylinder; and,

a second circuit coupled to a second electromechanical valve, said second valve controlling fluid communication with a second engine cylinder, wherein a current generated in said first valve while decelerating said first valve towards a closed position is routed through said first control circuit to said second control circuit to induce said second valve to move towards an open position.

49. The system of claim 48 wherein said first and second electromechanical valves are electrically actuated ball-screw valves.
